



A new era in wound management

The First Total Therapy Solution with Electrospun Healing Fibers (EHF™) technology for Wound Healing and Skin Regeneration

The Spincare is a portable and fully personalized wound care system, coupled with a disposable, single patient polymer-based sterile solution ampule enabling real-time printing of a site-specific nanofibrous matrix directly onto a wound that bio-mimics the structure of the human extracellular matrix.

Spincare utilizes proprietary Electrospun Healing Fiber (EHF™) technology to treat superficial and partial thickness wounds, abrasions, superficial and partial thickness burns, donor site wounds, surgical incisions, after suture removal, skin tears, and dermatological lesions.

Our Core Technology: Real-Time Electrospun Healing Fibers (EHF™)

- An excellent medium for tissue regeneration
- Drug delivery and slow-release platform
- Reduces the potential risk for infection
- Enhances the healing process
- Excellent adherence
- Highly permeable and breathable

Highlights of the Spincare System

Live while you Heal



No contact
one-time
application



Allows
early showers



Nanofibrous, multi-layer,
skin-like matrix



Pain free excellent
adherence to
wound bed



Excellent healing
and scarring



Mobility is
not impaired



No painful
redressing



Cost effective,
reduced financial burden



Personalized to fit
all shapes including
hard to dress areas

About Nanomedic

Nanomedic Technologies Ltd. is a medical therapeutics company focused on transforming wound care both within and outside of hospital settings. Specializing in research, development, and distribution of its proprietary Electrospun Healing Fiber (EHF™) technology, Nanomedic is advancing the standard of care and helping improve wound care across the healthcare continuum. Nanomedic's flagship product, the Spincare System, is the first and only CE-cleared commercialized portable electrospinning wound treatment device on the market.

Founded in 2018, Nanomedic Technologies Ltd. is headquartered in Lod, Israel.

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Change lives, not dressings.

Case Report 2

Using the Spincare™ System in Partial Thickness Burns.

The Department of Plastic Surgery, Rambam Medical Center, Israel

Introduction

Over 30,000 people suffer new burns worldwide every day that are severe enough to warrant medical attention, reflecting an estimated 11 million new burns each year globally¹. The majority of burns are considered to be partial thickness skin wounds, affecting the epidermis and the superficial parts of the dermis, requiring a well-orchestrated, complex healing process. Various skin substitutes and dressings offer potential advantages over traditional treatments. Nevertheless, the search for an ideal treatment continues.

Spincare uses Electrospun Healing Fibers (EHF™) technology to create an on-the-spot, fully tailored nanofibrous personalized matrix for any wound shape and contour using electrospinning technology, which structurally mimics the extracellular matrix, serving as an excellent medium for tissue repair and healing.

Patient's History & Treatment

GA, 18Y old male with no previous medical history arrived at the Emergency Room (ER) with a partial thickness superficial to intermediate burn (10% TBSA) after spilling boiling coffee over his left shoulder, neck and torso. The blister roof had been removed, the burn wound was cleaned with saline and the Spincare matrix was applied. Excellent adherence to this complex geometry and burn location was observed. Kerlix was used as a secondary dressing for the first two days, afterwards no secondary dressing was applied. Patient was released from hospital on day 3. He was instructed to take showers as normal and allow the Spincare matrix to peel off by itself as his own skin was regenerated underneath.

Case Results

On day 7 the healing of the burn was completed; most of the Spincare matrix peeled off easily while the patient was taking his showers. The patient reported pain at the burn site upon arrival to the ER (level 3 on VAS scale). After applying the Spincare matrix the reported pain level was reduced to 0.

Conclusions

Medium size burn wounds on relatively complex body contour are easily treated with Spincare offering both patient and caregiver a rapid and minimally painful option for treatment, resulting in a quick and effective healing process. The advantage of a no-touch matrix is demonstrated here not only in preventing infections but also in reducing dressing associated pain. The transparency of the Spincare matrix enables good follow up of the healing process.



¹World Health Organization: WHO EESC Global Database. www.who.int/mediacentre/factsheets/fs365/en/.

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Case Report I

Using the Spincare™ System in Donor Site Wounds.

Division of Plastic & Reconstructive Surgery. The National Burn Center, Sheba Medical Center, Israel

Introduction

Split-skin grafting is used by surgeons to close skin defects following trauma, ulcers or deep burns. Although created under controlled, sterile conditions, donor site wounds (DSW) can be a considerable burden during the healing process.

Spincare uses Electrospun Healing Fibers (EHF™) technology to create an on-the-spot, fully tailored nanofibrous personalized matrix for any wound shape and contour using electrospinning technology, which structurally mimics the extracellular matrix, serving as an excellent medium for tissue repair and healing.

Patient's History

EYR, 58Y-old male with medical history of dyslipidemia and diabetes mellitus type 2, underwent a surgical excision of massive Squamous Cell Carcinoma (SCC) on the buttocks which required a skin graft transplantation.

Skin Graft Procedure

A skin graft of 170 cm² in area and 0.3 mm depth was harvested. The donor site wound was treated with adrenaline-soaked gauze in preparation for the Spincare transient skin-like layer.

Treatment

The Spincare matrix was applied to the donor site wound yielding a white nanofibrous layer with excellent coverage and full adherence to wound surface. A secondary dressing was applied on top of the primary layer.

Case Results

The Spincare matrix was left on the wound until it peeled off on its own when the tissue underneath epithelialized. The Spincare matrix showed excellent adherence to the wound throughout the healing period. Its transparency allowed for wound evaluation without its removal. No infection was reported. Patient follow up continued for 12 months.

Conclusions

A good healing process of the wound was demonstrated. The Spincare matrix layer served as a temporary skin and supported wound epithelialization underneath within 14 days.



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Case Report 3

Using the Spincare™ for Chronic Wounds

Dr. Eli Regev, M.D., Center for diagnosis and treatment of difficult to heal wounds

Introduction

Chronic wounds are a health problem that have severe outcomes for patients and contribute major costs to healthcare system. They are a major public health challenge and in most Western countries, it has been estimated that 1-2% of the population will experience a chronic wound during their lifetime. In the United States alone, they affect over 8 million patients costing between \$28-\$31B. Chronic wounds make it difficult for patients to accomplish their daily routine as it limits one's mobility and quality of life. Incorrect wound care treatment can result in an increased economic impact on the healthcare system and significantly affect the health of a patient.

Spincare creates an on-the-spot, fully tailored nanofibrous personalized matrix for any wound shape and contour using electrospinning technology, which structurally mimics the extracellular matrix, serving as an excellent medium for tissue repair and healing.

Patient's History & Treatment

84 years old female, chronic wound, dialysis patient, on multiple medications, and background diseases. In 2017 reported chronic pain in her right foot that developed charcot neuroarthropathy resulting in a non-healing wound of 1.5 x 1.5 cm in size with a large amount of exudate. Use of moist healing traditional therapies failed as well as most other remedies as well.

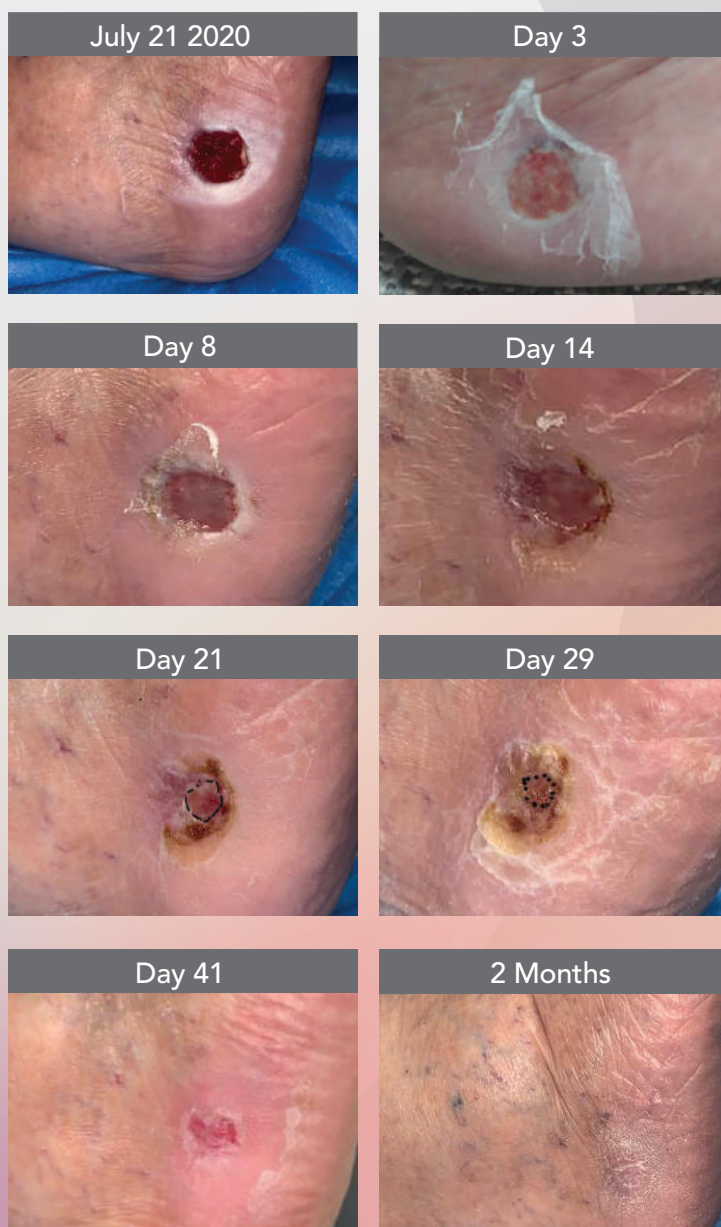
In July 2020, the patient was treated with the Spincare System. The Spincare's matrix was easily applied on the wound, produced negligible disruption to routine behavior, and the patient could shower after 48 hours.

Case Results

The Spincare matrix demonstrated excellent adherence to the wound throughout the healing period. Its transparency permitted wound evaluation on a weekly basis by the physician. The Spincare matrix tolerated unrestricted movement whereas traditional bandages would have restricted it.

Conclusions

After 41 days, there was an impressive improvement to the wound and within 2 months there was a complete closure, and the foot showed no additional indications of redness or ulceration. There was a substantial reduction of the wound size and full return to health with only one application of the Spincare. With the use of the Spincare System, the health system saved expenses of treatments while the patient's quality of life improved drastically as she did not have to return to the clinic to have the wound cleaned and re-dressed.



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Case Report 4

Using the Spincare™ System for Partial Thickness Mixed Burn

Rambam Health Care Campus

Introduction

Over 30,000 people suffer from new burns worldwide every day that are severe enough to warrant medical attention. Most burns are considered to be partial thickness skin wounds, requiring a well-orchestrated, complex healing process. Various skin substitutes and dressings offer potential advantages over traditional treatments.

Spincare uses Electrospun Healing Fibers (EHF™) technology to create an on-the-spot, fully tailored nanofibrous personalized matrix for any wound shape and contour using electrospinning technology, which structurally mimics the extracellular matrix, serving as an excellent medium for tissue repair and healing.

Patient's History & Treatment

BB, 54 Y-old, was admitted due to burn injuries to the shin area on both legs. The burn was evaluated as superficial partial thickness (2nd degree), 18% TBSA. At first the patient was treated with a hypochlorite solution and after 3 days the treatment was changed to the Spincare matrix. After 6 days of treatment the burn was re-evaluated and suspected to be full thickness (3rd degree). Treatment was changed to hypochlorite solution soaks, applied above the Spincare matrix.

Case Results

The Spincare matrix stayed on for the full healing period, with no need of reapplication and showed excellent adherence to the wound throughout the healing period. Its transparency allowed for wound re-evaluation and decision making when a deeper degree burn was suspected and change of treatment was needed. Evaluation of the burn on day 2 led to the understanding that the burn was of mixed depth with deeper areas, supported by the whitish appearance of the Spincare matrix. By day 22 the burn was completely healed.

Conclusions

The Spincare's transparency allowed for wound re-evaluation and decision making when a deeper degree burn was suspected and thus a change of treatment was needed. The combination of the hypochlorite solution soaks applied above the Spincare matrix redeemed the need for grafting and allowed excellent natural healing and scarring in a relatively short time.



Change lives, not dressings.

Case Report 5

Using the Spincare™ System for Partial Thickness Burn

Rambam Health Care Campus

Introduction

Over 30,000 people suffer from new burns worldwide every day that are severe enough to warrant medical attention. Most burns are considered to be partial thickness skin wounds, requiring a well-orchestrated, complex healing process. Various skin substitutes and dressings offer potential advantages over traditional treatments.

Spincare uses Electrospun Healing Fibers (EHF™) technology to create an on-the-spot, fully tailored nanofibrous personalized matrix for any wound shape and contour using electrospinning technology, which structurally mimics the extracellular matrix, serving as an excellent medium for tissue repair and healing.

Patient's History & Treatment

RH, 54 Y-old male, was admitted due to burn injuries from a vehicle fire. He suffered injuries to both of his hands and head. The burn was evaluated as superficial partial thickness (2nd degree), 9% TBSA.

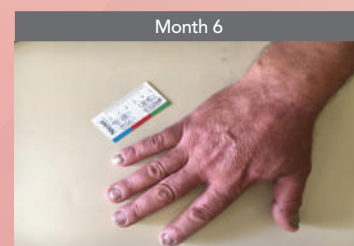
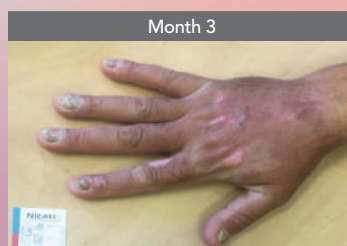
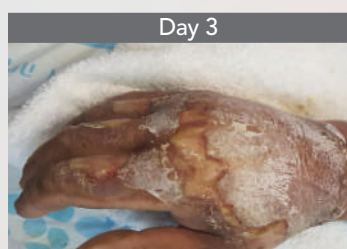
At first the patient was treated with a hypochlorite solution for the burns on his hands, and the blisters were debrided. After 24 hours the treatment was changed to the Spincare matrix. On day 3, a yellowish discoloration over the knuckles was observed. After closer inspection it was found to be a slight accumulation of wound fluid. There were no signs of infection, and the only action was to check the burn the next day. By day 14 the wound was completely healed.

Case Results

The Spincare matrix stayed on for the full healing period, with no need of reapplication and showed excellent adherence to the wound throughout the healing period. Its transparency allowed for wound evaluation and adherence and flexibility allowed an early start of exercises to preserve mobility. The Spincare matrix permitted free use of his hands whereas tradition bandages would have restricted it.

Conclusions

The Spincare adherence and flexibility allowed for an early start of exercises to preserve range of motion of the hands. The hands completely recovered with no loss of function and excellent scarring.



Change lives, not dressings.

Case Report 6

Using the Spincare™ System for Partial Thickness Burn

Rambam Health Care Campus

Introduction

Over 30,000 people suffer new burns worldwide every day that are severe enough to warrant medical attention. Most burns are considered to be partial thickness skin wounds, requiring a well-orchestrated, complex healing process. Various skin substitutes and dressings offer potential advantages over traditional treatments.

Spincare uses Electrospun Healing Fibers (EHF™) technology to create an on-the-spot, fully tailored nanofibrous personalized matrix for any wound shape and contour using electrospinning technology, which structurally mimics the extracellular matrix, serving as an excellent medium for tissue repair and healing.

Patient's History & Treatment

SA, 42 Y-old male, was admitted due to burn (scald) injuries to his left shoulder, proximal arm, and part of his lower back after a radiator exploded. The burn was evaluated as superficial partial thickness (2nd degree), 9% TBSA.

The patient was treated with a hypochlorite solution for the burns on his hands and shoulders, and on the day of the admission the treatment was changed to the Spincare matrix on the shoulder. The health care professionals reported that the process was extremely fast and Spincare's matrix was easy to apply on an overly complicated area to dress, allowing for an immediate start to physiotherapy and showers. By day 14, the burn had completely epithelialized.

Case Results

The Spincare matrix stayed on for the full healing period, with no need of reapplication and showed excellent adherence to the wound throughout the healing period. Its transparency constantly permitted wound evaluation and its adherence and flexibility granted the preservation of range of motion. The Spincare matrix tolerated unrestricted use of hands whereas traditional bandages would have restricted it.

Conclusions

Shoulder burns are notoriously difficult to dress due to the anatomy and movement of the joint. Traditional dressings tend to be bulky and need to be wrapped around the torso to be kept in place, and showers are usually impossible. The properties of the Spincare matrix are maintaining range of motion, the avoidance of painful dressing changes and permitted showering freely during the healing process.

